Malaguti
IDEE IN MOTO

B

IDENTIFICATION OF ELECTRICAL SYSTEM FAILURES

CNK 50 DRAKON

WORKSHOP MANUALS

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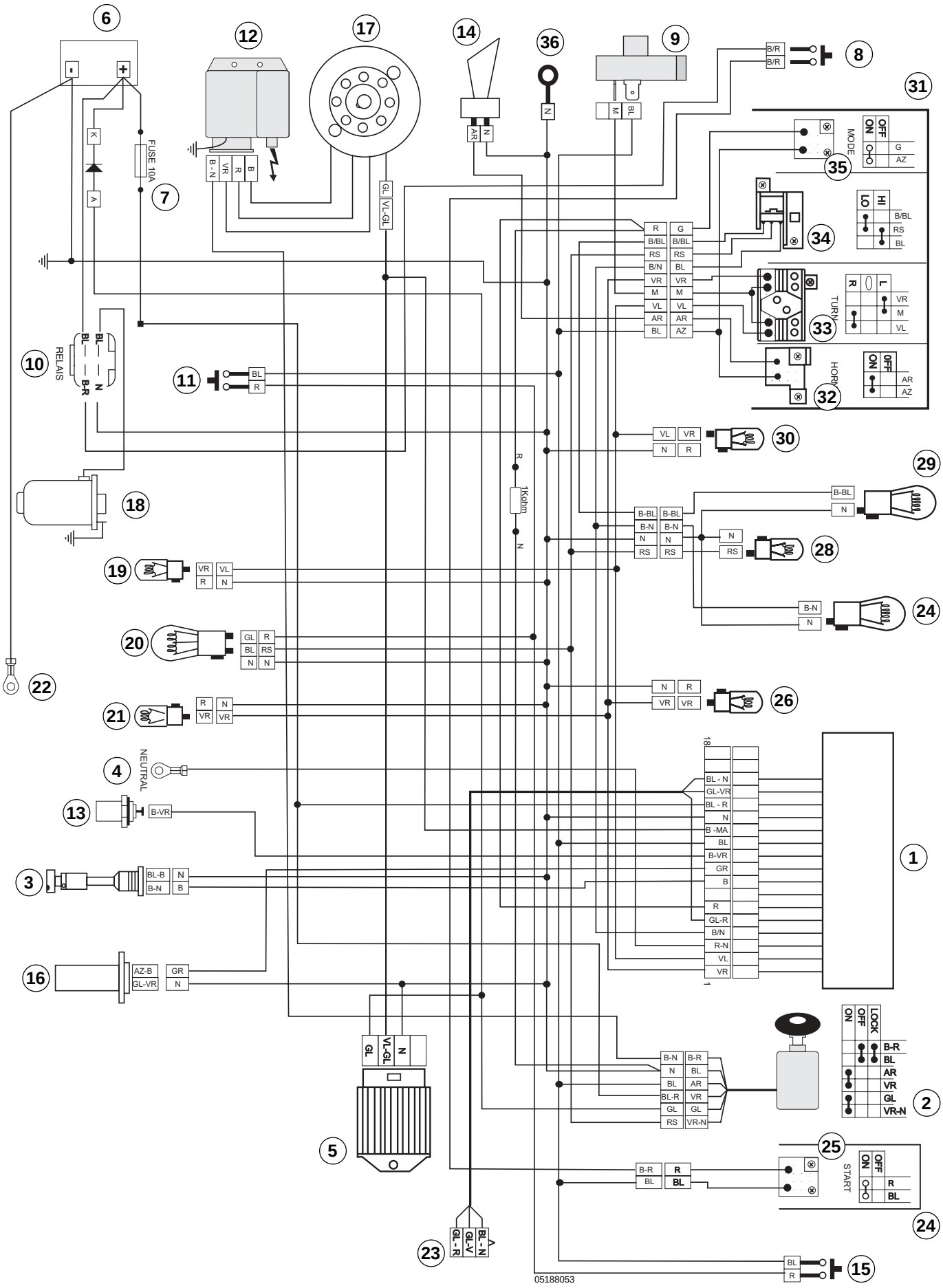
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18
1Kohm
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4
NEUTRAL
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B-VR
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AZ-B
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BL - N
GL-VR
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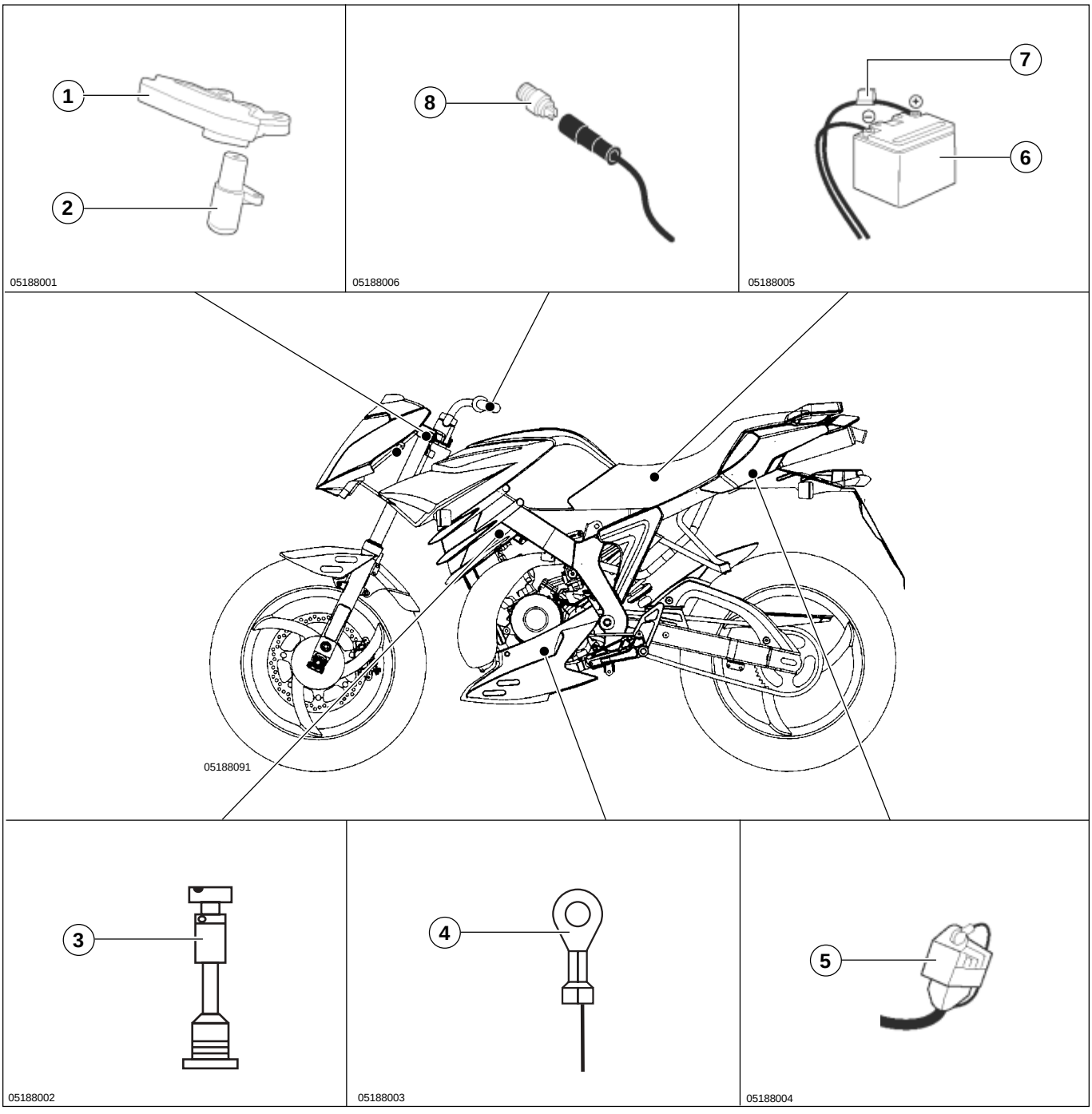
B -MA
BL
B-VR
GR
B
R
GL-R
B/N
R-N
VL
VR
1
2
ON
OFF
LOCK
B-R
BL
AR
VR
GL
VR-N
5
25
START
R
BL
23
GL - R
GL-V
BL - N
15
05188053

ELECTRICAL SYSTEM CODE

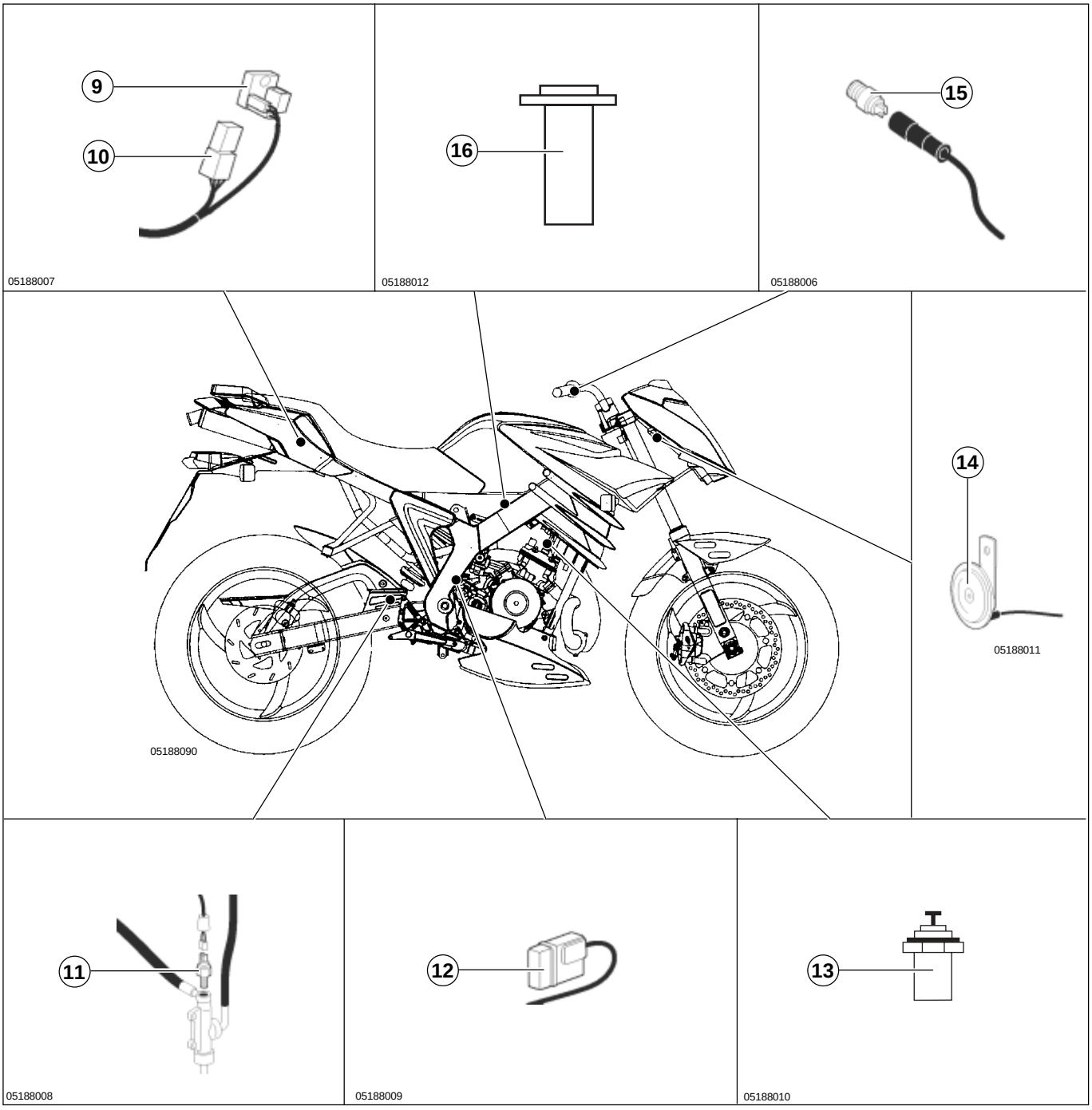
1) Instrument panel
2) Main switch
3) Oil gauge indicator switch
4) Neutral gear switch
5) Regulator
6) Battery
7) Fuse 10A
8) Clutch switch
9) Flasher unit
10) Starting relay
11) Rear stop switch
12) “CDI” control unit
13) Water temperature probe
14) Horn
15) Front stop switch
16) Fuel reserve sensor
17) CDI magneto
18) Starter
19) Left rear flasher light
20) Tail brake and stop light
21) Right rear flasher light
22) Electrical earth of the engine
23) Tachometer counter
24) Right control unit
25) Starter button
26) Right front flasher light
27) High beam
28) Parking light
29) Low beam
30) Left front flasher light
31) Left control unit
32) Horn control
33) Flasher light control
34) Light control
35) MODE button
36) Chassis ground

COLOUR CODE	
AR	Orange
AZ	Light blue
AZ-B	Light blue-White
B	White
B-N	White - Black
B-MA	White - Brown
B-R	White - Red
B-VR	White - Green
BL	Blue
BL-B	Blue - White
BL-N	Blue - Black
BL-R	Blue - Red
GL	Yellow
GL-B	Yellow - White
GL-N	Yellow - Black
GL-R	Yellow - Red
GL-VR	Yellow - Green
GR	Grey
M	Brown
N	Black
R	Red
RS	Pink
VL	Purple
VR	Green
VL-GL	Purple - Yellow

1) Digital meter assembly
2) Main switch
3) Oil gauge indicator switch
4) Neutral gear switch
5) Regulator
6) Battery
7) Fuse 10A
8) Clutch switch

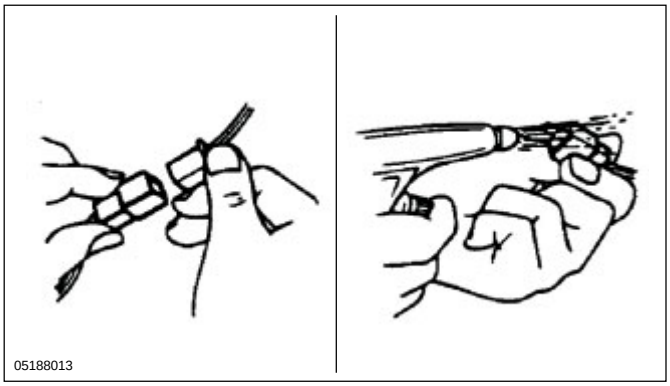


9) Flasher unit
10) Starting relay
11) Rear stop switch
12) “CDI” control unit
13) Water temperature probe
14) Horn
15) Front stop switch
16) Fuel level gauge

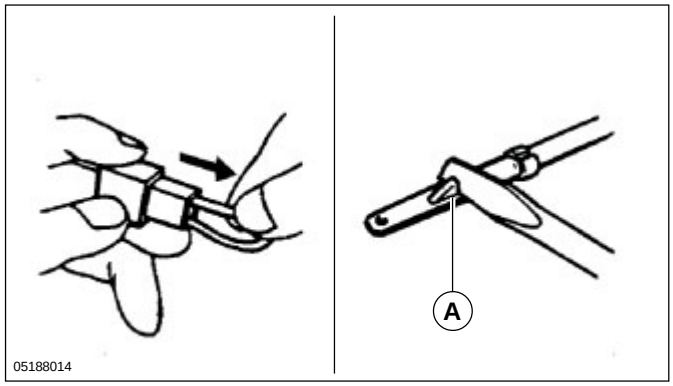


Check rust and moisture of connectors.

1) Disconnect
   • Connectors
2) Dry each terminal with an air blower.



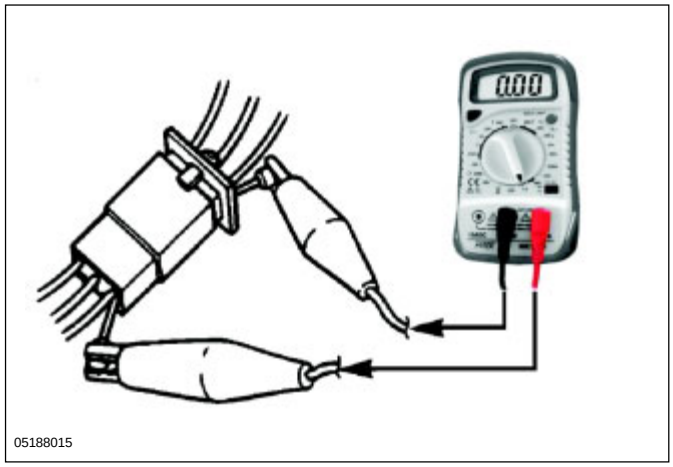
3) Connect and disconnect the connector twice or three times.
4) Pull the connector to check that it will not come off.
5) If the terminal comes off, bend up pin (A) and reinsert the terminal into the connector.



6) Connect
   • Connectors

NOTE

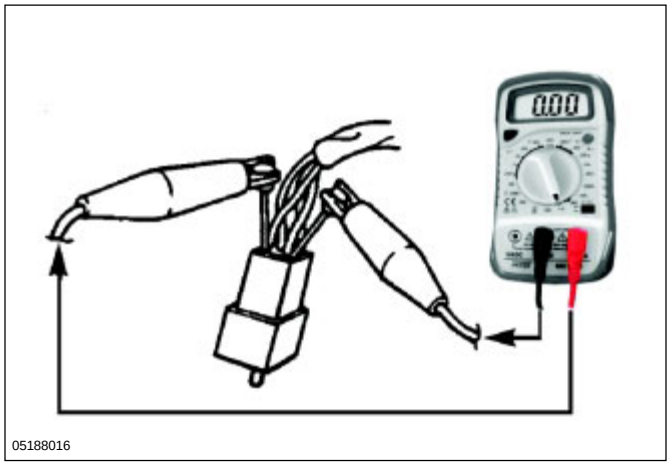
The connector parts are assembled properly when they "click" together.



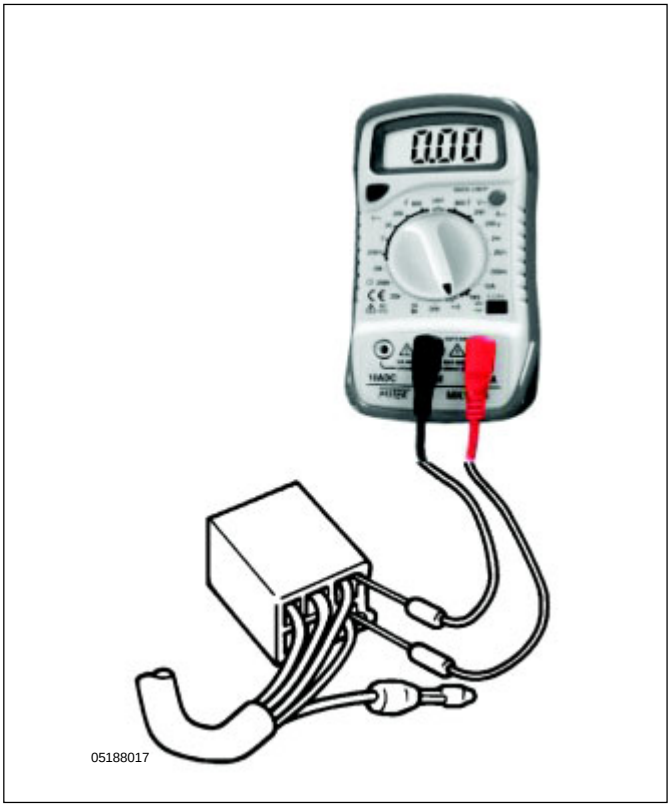
7) Check for continuity with a Tester.

NOTE

- *If there is no continuity, clean the terminals.*
- *Be sure to perform the steps 1 to 7 when checking the electrical system.*
- *For a field remedy, use a contact revitalizer.*
- *Use the Tester as shown in figure.*



- Set the Tester selector to "Ω".
- Insert the terminals of the tester in the connector corresponding to the cables in question.
- Check continuity.



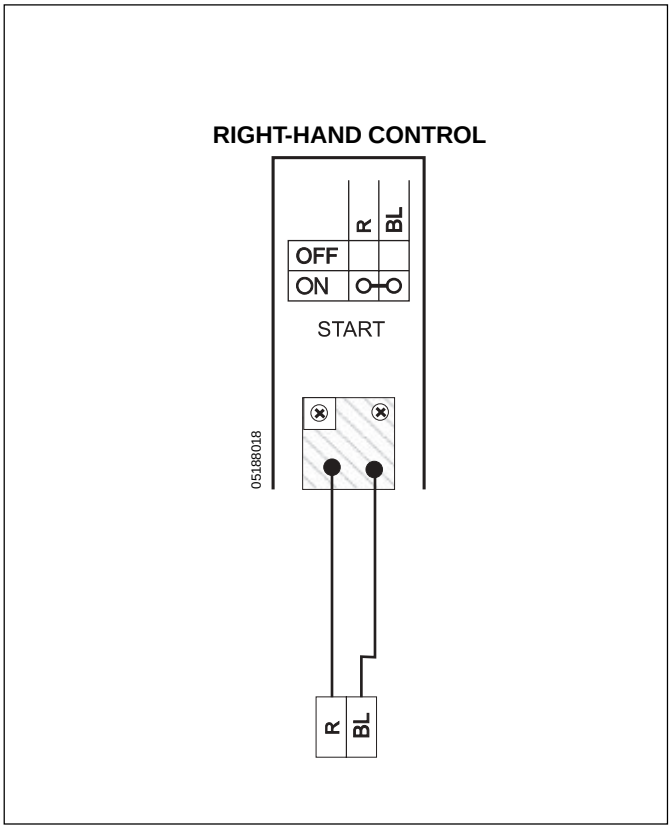
SWITCH CONNECTIONS AS SHOWN IN THIS MANUAL

This manual contains the connection charts (as shown left) showing the switch terminals (e.g., main switch, brake switch, lighting switch, etc.)

The left column indicates the different switch positions; the top line indicates the colours of the conductors connected to the switch terminals.

"○─○" indicates the continuity between terminals; i.e., a closed circuit at the special switch positions.

In this chart, "BL" and "R" are continuous when the switch is set to "ON".



THE IGNITION SYSTEM FAILS TO OPERATE (NO SPARK OR INTERMITTENT SPARK)

Check

1) Spark plug
2) Spark plug cap resistance
3) ”CDI” control unit resistance
4) Main switch
5) Resistance of condenser charging coil
6) Pick-up resistance
7) Ignition system connections

1 Spark plug

- Check the spark plug conditions
- Check the spark plug type
- Check the electrode gap

Electrode gap:
0,7 mm

Standard spark plug:
NGK BR 9ES

INCORRECT

Faulty spark plug ➜
Replace or adjust the electrode gap

CORRECT

2 Spark plug cap resistance

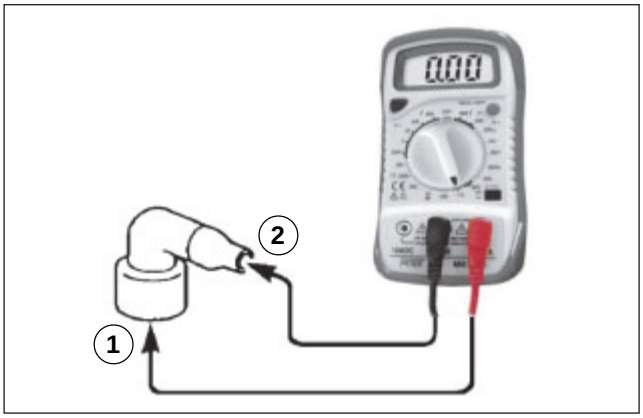
- Remove the spark plug cap

NOTE

Removing the spark plug ➜ Rotate the cap anti-clockwise
Installing the spark plug ➜ Turn the key clockwise.

- Connect **Tester (kΩ)** as follows:
  - Terminal (+) Tester ➜ side 1
  - Terminal (-) Tester ➜ side 2

Cap resistance:
5K Ω ± 20% a 20°C



INCORRECT

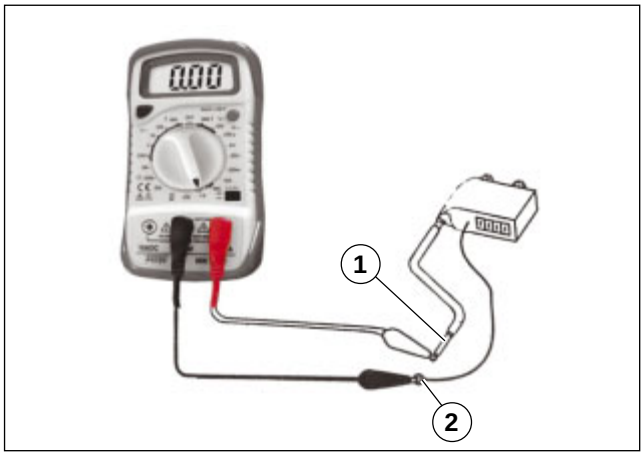
Faulty spark plug cap ➜ Replace

CORRECT

05188060

3 "CDI" control unit resistance

- Connect the **Tester (kΩ)** to the control unit as follows:
  - Terminal (+) Tester ➜ Cable A.T. (1)
  - Terminal (-) Tester ➜ cable terminal (2)



Secondary coil resistance:
5-6 KΩ a 20 °C.

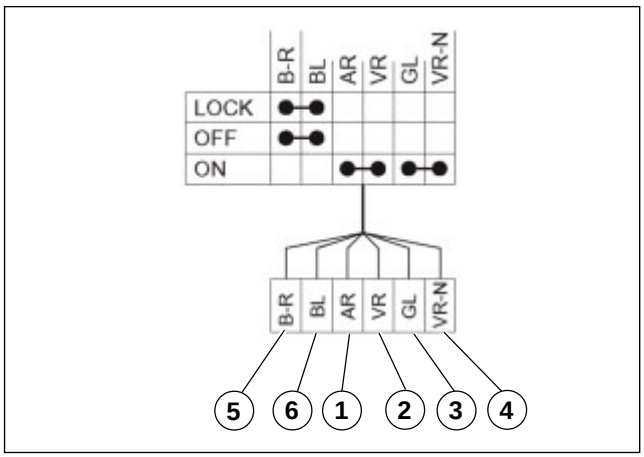
INCORRECT

"CDI" control unit faulty ➜ Replace

CORRECT

4 Main switch

- Disconnect the main switch from the system
- Connect the **Tester (Ω)** and check the continuity between the following cables:
- **Turn the main switch to "ON"**
  - Orange (1) ➜ Green (2)
  - Yellow (3) ➜ Green - Black (4)



- **Turn the main switch to "OFF"**
- Check the continuity between the following cables:
  - Blue - Red (5) ➜ Blue (6)

See "Checking the switches" page 7

INCORRECT

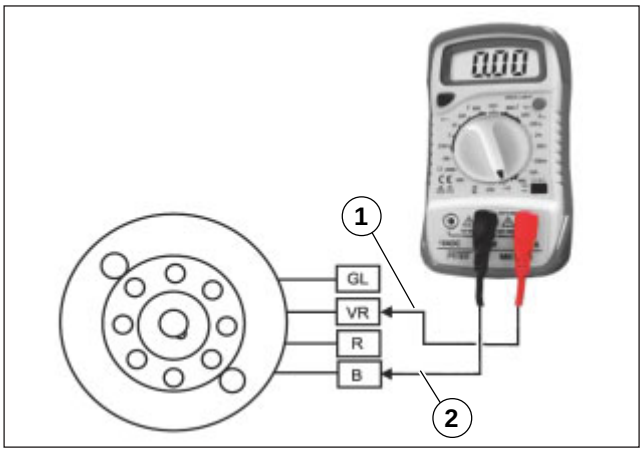
Faulty main switch ➜ Replace

CORRECT

05188061

5 Resistance of condenser charging coil

- Disconnect flywheel connectors
- Connect **Tester (Ω)** as follows:
  - Terminal (+) Tester ➜ Green cable (1)
  - Terminal (-) Tester ➜ White cable (2)



Charge coil resistance:
640-780 Ω a 20 °C.

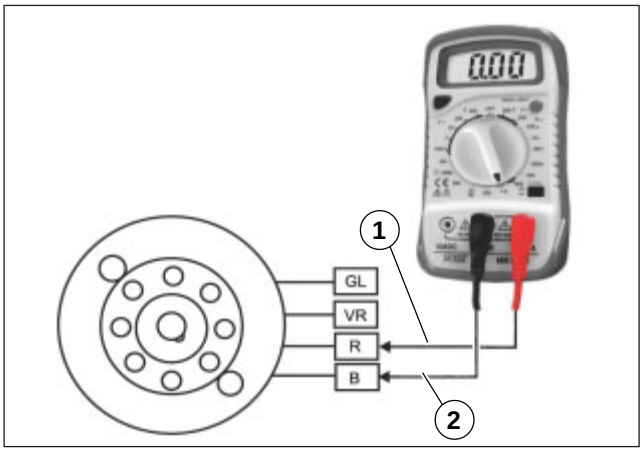
INCORRECT

Replace the yoke

CORRECT

6 Pick-up resistance

- Connect the **Tester (Ω)** to the flywheel as follows:
  - Terminal (+) Tester ➜ Red cable (1)
  - Terminal (-) Tester ➜ White cable (2)



Pick-up resistance
100-140 Ω a 20 °C.

INCORRECT

Replace the yoke

CORRECT

7 Wiring connections

- Check the ignition system for connections

See “Electrical diagram”

INCORRECT

Repair the system wiring

05188060

STARTING CIRCUIT OPERATION

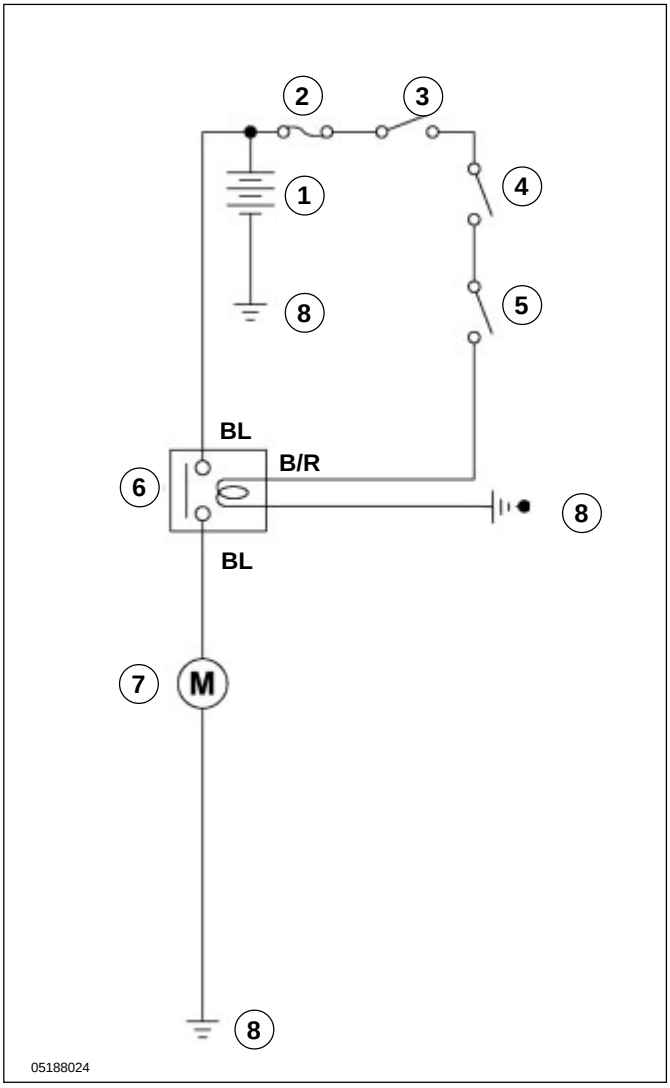
The starting circuit on this model consists of the starter motor and the starter relay.

When the main switch is in “ON” position and the starting button is pressed, the starter motor can operate only if:

THE CLUTCH HANDLE IS PULLED

If the above mentioned conditions are not met, the starting relay cannot be energized.

1) Battery
2) Fuse 10A
3) Main switch
4) Starting switch (start)
5) Clutch switch
6) Starting relay
7) Starter
8) Chassis ground



THE STARTER MOTOR FAILS TO OPERATE

Check
1) Fuse 10A
2) Battery
3) Starter
4) Starting relay
5) Main switch
6) Clutch switch
7) Starting switch (start)
8) Wiring connections

1 Fuse 10A

- Remove the fuse
- Connect **Tester (Ω)** to the fuse
- Check the fuse for continuity

NO CONTINUITY → Faulty fuse ➜ Replace

CONTINUITY

2 Battery

- Check the battery conditions

See "Charge voltage" on page 16

Minimum voltage: 12,5 V
Specific gravity electrolyte level:
1.280 g/dm3

INCORRECT → Clean the terminals
Recharge or replace battery

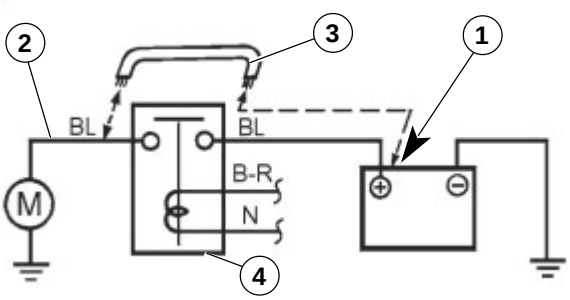
CORRECT

05188063

3 Starter

- Connect battery positive terminal (1) and starter motor cable (2) using a jumper lead (3) as shown in figure.

  (4) Starting relay



- Check the starter motor for operation.

THE STARTER MOTOR TURNS

WARNING

A wire for the jumper lead must have the equivalent capacity as that of the battery lead or more, otherwise it may cause the jumper lead to be burned.

THE STARTER MOTOR FAILS TO TURN

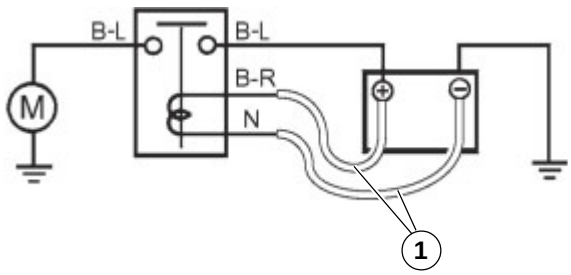
Faulty starter motor ➜ Replace

4 Starting relay

- Disconnect the starter relay
- Connect the battery to the starting relay with jumper leads (1).

Battery cable (+) ➜ White - Red cable

Battery cable (-) ➜ Black cable



- Check the starter motor for operation.

THE STARTER MOTOR TURNS

WARNING

- ***Take care not to reverse the battery connections because the diode will be damaged.***
- ***Take care to avoid shorting the positive and negative terminals when connecting the battery to the relay.***

THE STARTER MOTOR FAILS TO TURN

Faulty starter motor ➜ Replace

05188064

5 Main switch

- Disconnect the main switch
- Turn the main switch to “ON”
- Connect **Tester (Ω)** and check leads for continuity

Orange cable ➜ Green cable

Yellow lead ➜ Green-Black lead

See “Checking the switches” page 7

INCORRECT

Faulty main switch ➜ Replace

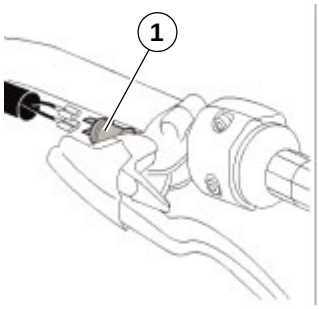
CORRECT

6 Clutch switch

- Disconnect clutch switch (1)
- Connect **Tester (Ω)** and check the terminals for continuity.

Terminal (T1) ➜ Terminal (T2)

See “Checking the switches” page 7



	T.1	T.2
1		
2	O—O	

1 Clutch lever not pulled

2 Clutch lever pulled

INCORRECT

Faulty clutch switch ➜ Replace

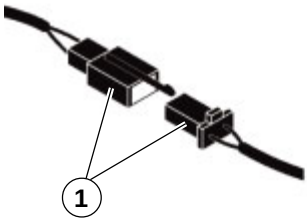
CORRECT

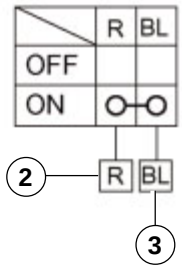
7 Starting switch (start)

- Disconnect two-way connector (1)
- Connect the **Tester (Ω)** to the connector on the side of the switch

  Terminal (+) Tester ➜ Red cable (2)

  Terminal (-) Tester ➜ Blue cable (3)
- Press the “START” button





NO CONTINUITY

Faulty starting switch ➜ Replace

CONTINUITY

8 Wiring connections

- Check the ignition system for connections

INCORRECT

Reset see “Electrical diagram”

05188066

TROUBLE SHOOTING

IF THE BATTERY IS FLAT

Check
1) Fuse 10A
2) Charge voltage
3) Charge coil resistance
4) Recharge system connections

1 Fuse 10A

- Remove the fuse
- Connect **Tester (Ω)** to the fuse
- Check the fuse for continuity

NO CONTINUITY ➜ Faulty fuse ➜ Replace

CONTINUITY

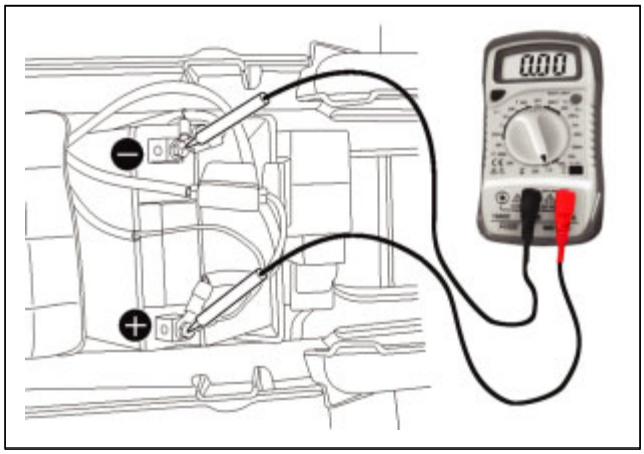
2 Charge voltage

- Connect the inductive rev counter to the spark plug cable.
- Connect the **Tester (DC 20 V)** to the battery

Terminal (+) ➜ Terminal (+) of the battery
Terminal (-) ➜ Terminal (-) of the battery

- Measure the battery voltage
- Start the engine and accelerate to 5000 rpm.
- Check the battery voltage

Charge voltage:
13,5 ~ 14,5 V



NOTE
Use a completely charged battery.

CORRECT ➜ The charging circuit operates properly

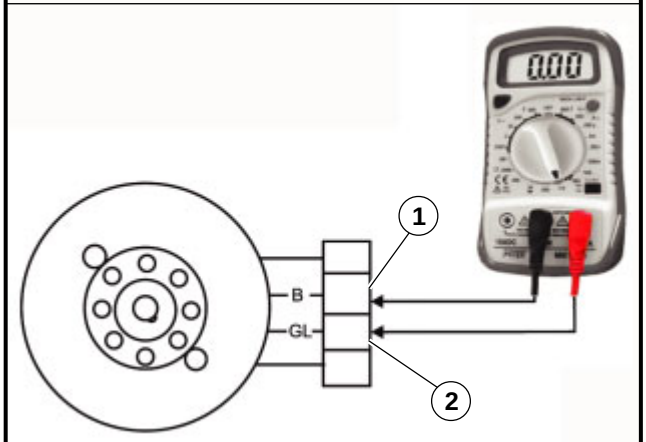
INCORRECT

05188067

3 Charge coil resistance

- Disconnect flywheel connectors
- Connect **Tester (Ω)** as follows:

Terminal (+) ➜ Terminal of yellow cable (1)
Terminal (-) ➜ Terminal of white cable (2)



Charge coil resistance:
0,2 ~0,7 Ω a 20 °C

INCORRECT

Replace the yoke

CORRECT

4 Recharge system connections

• Check the connections of the recharge system
See “Electrical diagram”

INCORRECT

Repair the system wiring

CORRECT

Replace the **voltage regulator**

05188068

TROUBLE SHOOTING

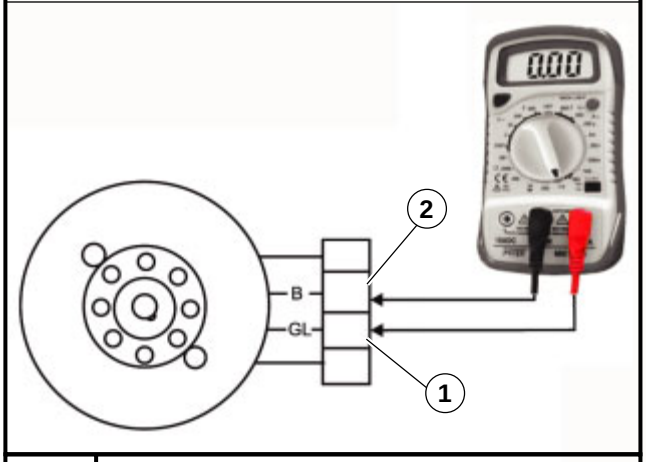
LIGHTS SYSTEM FAULTY

Check
1) Lighting coil resistance
2) Voltage regulator
3) Main switch
4) Lighting system wiring

1 Lighting coil resistance

- Disconnect flywheel connectors.
- Connect **Tester (Ω)** as follows:

Terminal (+) ➜ Yellow lead terminal (1)
Terminal (-) ➜ White lead terminal (2)



Lighting coil resistance:
0,2~0,7 Ω a 20 °C

INCORRECT ➜ Replace the yoke

CORRECT

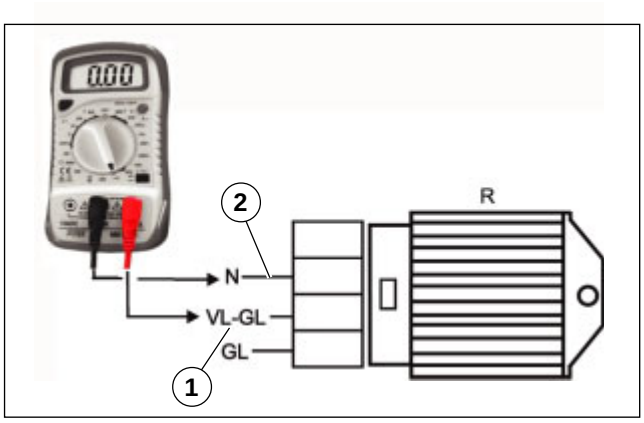
2 Check voltage regulator

- Connect the **Tester (AC)** to the connector of the regulator (**leaving it inserted**).

Terminal (+) Tester ➜ Purple - yellow cable (1)

Terminal (-) Tester ➜ Black lead (2)

- Start the engine at 5000 rpm.
- **The voltage measured should be > 12 V.**



INCORRECT

Replace the voltage regulator

CORRECT

3 Main switch

- Disconnect the main switch
- Turn the main switch to “ON”
- Connect the **Tester (Ω)** and check the continuity between the following cables:

Yellow lead ➜ Green-black lead

See “Checking the switches” page 7.

INCORRECT

Replace the main switch

CORRECT

4 Lighting system wiring

- Check all connections of the lighting system

See “Electrical diagram”

INCORRECT

Repair the system wiring

LIGHTING SYSTEM CHECK

THE LOW BEAM, HIGH BEAM AND HIGH BEAM INDICATOR DO NOT COME ON

1 Bulb and bulb socket

- Check the bulb and bulb socket for continuity

NO CONTINUITY → Replace bulb or bulb socket

CONTINUITY

2 Checking the light holder and meter assembly voltage

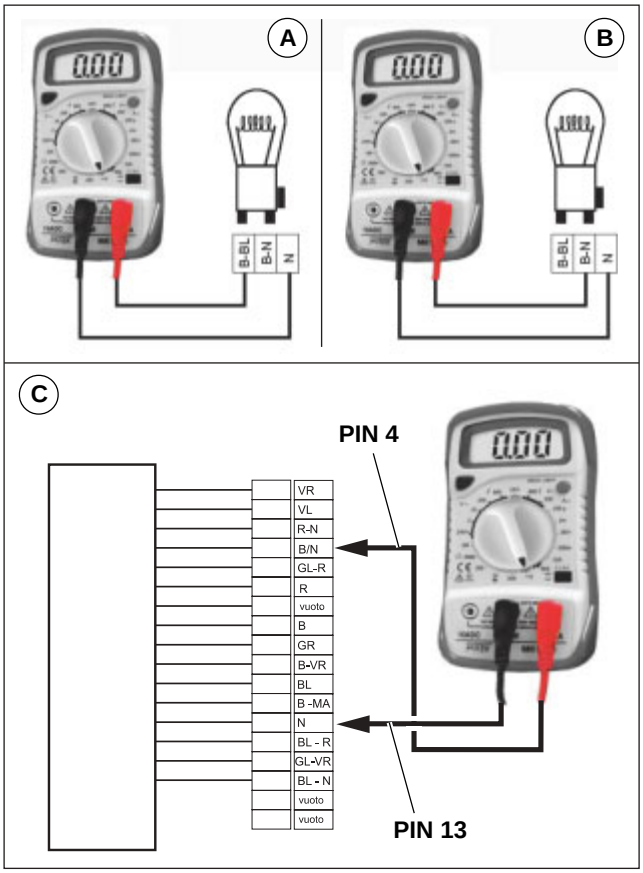
- Connect the **Tester (AC 20 V)** to the connector of the headlight and the digital instrument.

(A) Checking the low beam indicator light
Terminal (+) ➜ Blue-white lead
Terminal (-) ➜ Black lead

(B) Checking the high beam indicator light
Terminal (+) ➜ White-black lead
Terminal (-) ➜ Black lead

(C) High beam indicator check
Terminal (+) ➜ White-black lead **(PIN 4)**
Terminal (-) ➜ Black lead **(PIN 13)**

- Start the engine and press the button to activate the high and low beam indicator lights.
- **The voltage measured by the tests (A-B-C) should be > 12 V.**



INCORRECT → Repair the connections of the front headlight and the meter assembly light.
See “Electrical diagram”

CORRECT → The circuit is not faulty

05188071

THE TAILLIGHT FAILS TO COME ON

1 Bulb and bulb socket

- Check the bulb and bulb socket for continuity

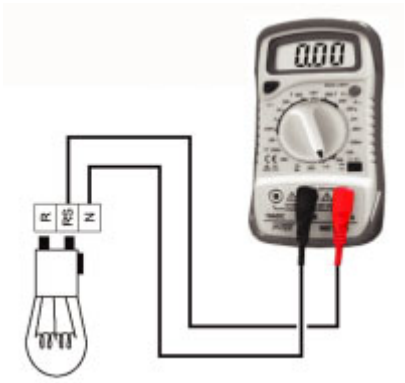
NO CONTINUITY → Replace bulb or bulb socket

CONTINUITY ↓

2 Checking the light holder voltage

- Connect **Tester AC 20V** to the bulb socket terminals.

Terminal (+) ➜ Pink lead terminal
Terminal (-) ➜ Black lead terminal



- Start the engine at 5000 rpm.
- **The voltage measured should be > 12 V.**

INCORRECT → Restore the connections between the main switch and the rear light.
See “Electrical diagram”

CORRECT ↓

The circuit is not faulty

05188072

TROUBLE SHOOTING

THE TURN INDICATORS, STOP LIGHT AND INSTRUMENT PANEL LIGHTS DO NOT COME ON; THE REV COUNTER AND HORN DO NOT WORK

Check
1) Fuse 10A
2) Battery
3) Main switch
4) Signal system wiring

1 Fuse 10A

- Remove the fuse
- Connect **Tester** (Ω) to the fuse
- Check the fuse for continuity

NO CONTINUITY → Faulty fuse ➜ Replace

CONTINUITY

2 Battery

- Check the battery conditions

Minimum voltage: 12,5V

Specific gravity electrolyte level: 1.280 g/dm3

Electrolyte level

INCORRECT → Clean the terminals; Recharge or replace battery; Refill with distilled water

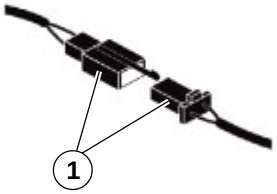
CORRECT

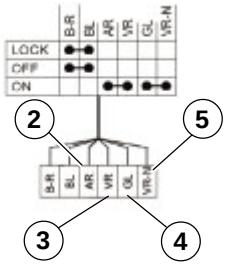
05188073

3 Main switch

- Disconnect connector (1) of the main switch
- Turn the main switch to “ON”
- Connect **Tester (Ω)** and check the continuity as follows:

Terminal (+) ➜ Orange lead (2)
Terminal (-) ➜ Green lead (3)
Terminal (+) ➜ Yellow lead (4)
Terminal (-) ➜ Green-black lead (5)
See “Checking the connections” page 6





INCORRECT

Faulty main switch ➜ Replace

CORRECT

4 Check wiring

- Check the signal system wiring

See “Electrical diagram”

INCORRECT

Repair the system wiring

CORRECT

- Check the conditions of all signal system circuits

See “Checking the signal system” page 24

05188074

CHECKING THE SIGNAL SYSTEM

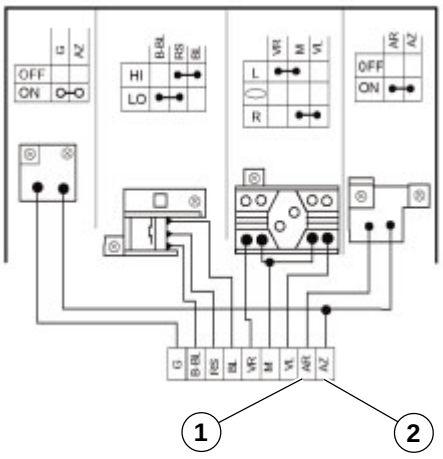
THE HORN DOES NOT WORK

1 Horn switch

- Disconnect the nine core connector of the left side switch.
- Connect **Tester** (Ω) to the connector
- Press the button (Horn) to activate the horn
- Check continuity between the cables as follows:

Terminal (+) ➜ Orange lead (1)
Terminal (-) ➜ Light blue lead (2)

Button pressed ➜ Continuity
Button not pressed ➜ No continuity



INCORRECT

Horn switch faulty ➜ Replace the left switch.

CORRECT

05188075

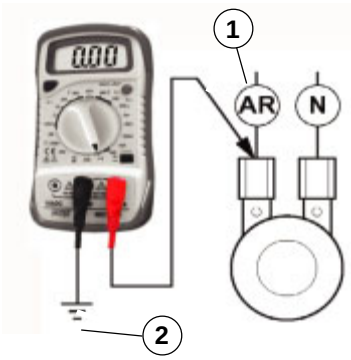
2 Power supply check

- Connect **Tester (DC 20 V)** as follows:

Terminal (+) ➜ Orange lead (1)
Terminal (-) ➜ Chassis ground (2)

- Turn the main switch to “ON”
- Press the button (Horn) to activate the horn

- **The voltage measured should be > 12 V.**



INCORRECT

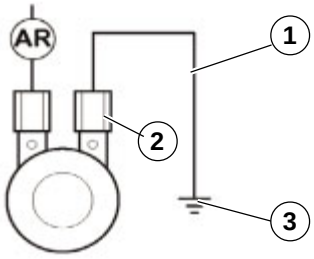
Restore the connection
of the feed circuit of the horn.
See “Electrical diagram”

CORRECT

3 Ground check

- Disconnect the black lead from the terminal of horn
- Make a bridge (1), between the terminal (2) and the frame’s electrical earth (3).
- Turn the main switch to “ON”
- Press the button (Horn) to activate the horn

12 V



THE HORN SOUNDS

Repair the connection
between the black lead and the chassis ground
See “Electrical diagram”

THE HORN DOES NOT SOUND

Faulty horn ➜ Replace

05188076

THE STOP LIGHT FAILS TO COME ON

1 Bulb and bulb socket

- Check the bulb and bulb socket for continuity

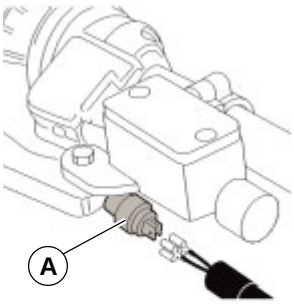
NO CONTINUITY → Replace bulb or bulb socket

CONTINUITY

2 Front and rear brake switch

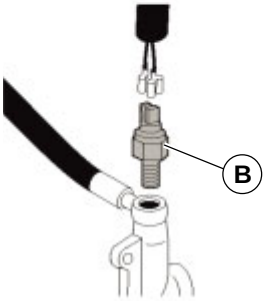
- Disconnect the switch leads
- Connect **Tester (Ω)** to terminals (T1-T2)
- Check the terminals for continuity

See "Checking the switches" page 7



	T.1	T.2
1	O	O
2		

1) Front brake lever pulled
2) Front brake lever not pulled



	T.1	T.2
1	O	O
2		

1) Rear brake pedal pressed
2) Rear brake pedal not pressed

(A) Front brake switch
(B) Rear brake switch

INCORRECT → Faulty brake switch ➜ Replace

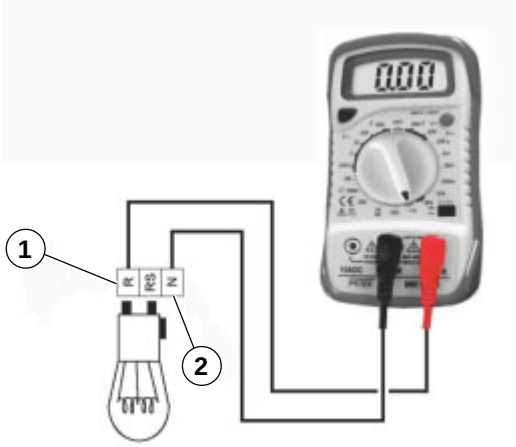
CORRECT

05188077

3 Voltage check

- Connect **Tester (DC 20V)** to the bulb socket connector

Terminal (+) ➜ Red lead (1)
Terminal (-) ➜ Black lead (2)



- Turn the main switch to “ON”
- Pull the rear brake lever or press the rear brake pedal.
- **The measured voltage in both cases must be 12 V**

INCORRECT

Faulty read lead, repair wiring
See “Electrical diagram”

CORRECT

The circuit is not faulty

05188078

THE TURN INDICATORS AND THEIR INDICATOR PANEL LIGHTS DO NOT WORK

1 Bulb and bulb socket

- Check the bulb and bulb socket for continuity

NO CONTINUITY ➜ Replace bulb or bulb socket

CONTINUITY

2 Turn indicator switch.

- Disconnect the nine core connector of the left side switch.
- Connect the **Tester (Ω)** to the cables, as follows:

- Switch on the right turn indicators.

Terminal (+) ➜ Brown lead (1)

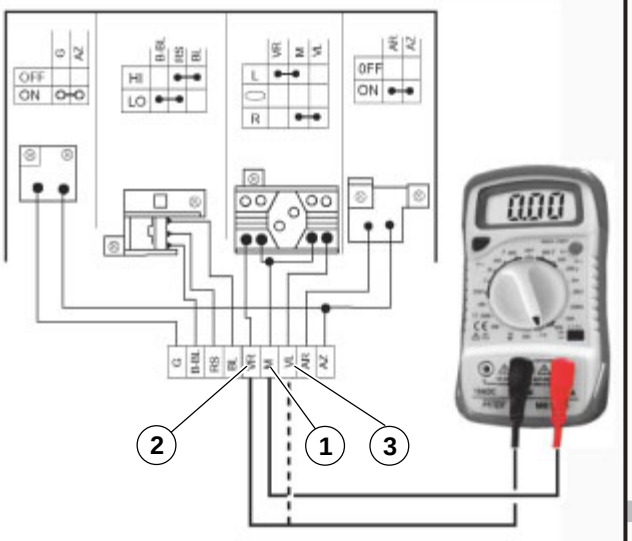
Terminal (-) ➜ Green lead (2)

- Switch on the left turn indicators.

Terminal (+) ➜ Brown lead (1)

Terminal (-) ➜ Purple lead (3)

- In both cases there must be continuity.



INCORRECT ➜ Faulty flasher light switch ➜ Replace the left switch.

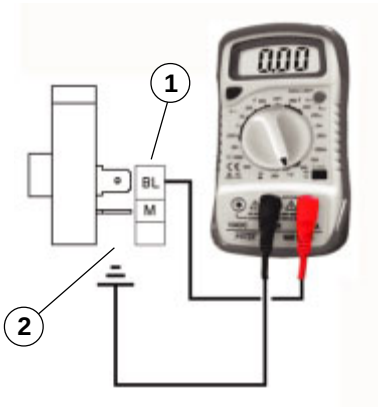
CORRECT

05188079

3 Flasher relay voltage check

- Disconnect connector of flasher relay
- Connect **Tester (DC 20 V)** as follows:

Terminal (+) ➜ Blue lead (1)
Terminal (-) ➜ Chassis ground (2)



- Turn the main switch to “ON”
- **The voltage measured should be > 12 V.**

INCORRECT

Faulty blue lead between main switch and flasher relay.
See “Electrical diagram”

CORRECT

4 Check the brown lead for continuity

- Disconnect connector of flasher relay
- Disconnect connector of the left control unit
- Connect Tester **Tester (Ω)** to the terminals of the different connectors
- Check the brown lead for continuity

NO CONTINUITY

Faulty brown lead between flasher relay and left control unit.
Repair wiring.
See “Electrical diagram”

CONTINUITY

Faulty flasher relay ➜ Replace

05188080

5 Check voltage of right and left light holder

- Connect **Tester (DC 20V)** to the bulb socket connector

(A) Left flasher light

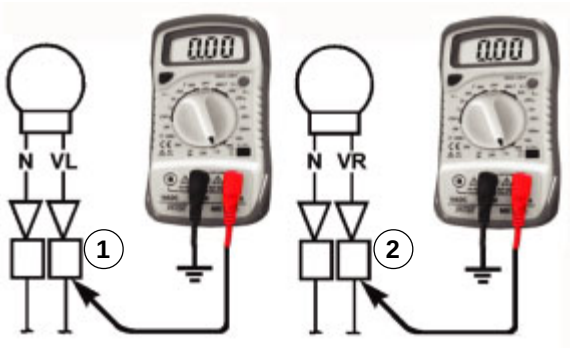
Terminal (+) ➜ Purple lead (1)

Terminal (-) ➜ Chassis ground (3)

(B) Right flasher light

Terminal (+) ➜ Green lead (2)

Terminal (-) ➜ Chassis ground (3)



- Turn the main switch to “ON”
- (A) Use the switch to activate the left flasher lights
- (B) Use the switch to activate the right flasher lights
- **The voltage measured, in both cases, should be > 12 V.**

INCORRECT

Cables interrupted between the turn indicator switch and the connector of the bulb socket.

Repair wiring.

See “Electrical diagram”

CORRECT

The circuit is not faulty

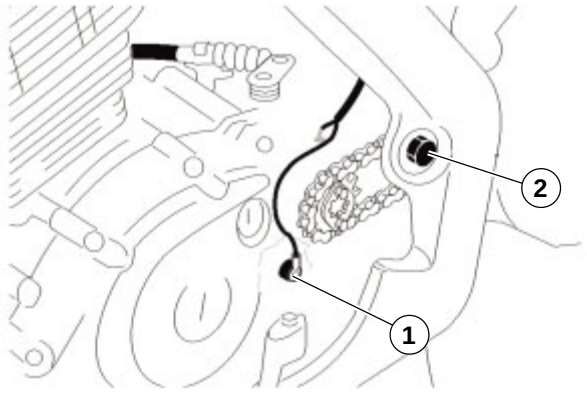
05188081

NEUTRAL GEAR INDICATOR COMES ON ONLY WITH "CHECK"

1 Neutral switch check

- Connect **Tester (Ω)** and check the continuity between the neutral switch and the ground

Neutral switch (1) ➜ Chassis ground (2)
Gears in neutral ➜ Continuity
Engaged gear ➜ No continuity



INCORRECT

Faulty neutral switch ➜ Replace

CORRECT

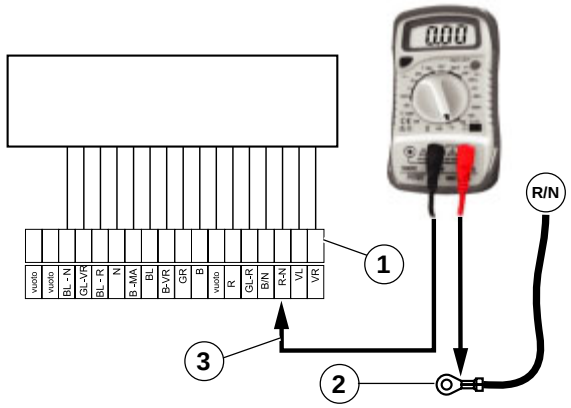
05188082

2 Meter assembly check

- Disconnect connector of meter assembly (1)
- Disconnect cable terminal (2) of neutral switch
- Connect **Tester (Ω)** as follows:

Terminal (+) ➜ **Red** cable terminal /**black (2)**

Terminal (-) ➜ **Red-black** lead **(PIN 3)**



CONTINUITY

Reduce the excessive play of the faston inserted in the PIN 3 of the instrument panel connector (red – black cable).

NO CONTINUITY

Faulty lead between neutral switch and meter assembly connector. Repair wiring.

See “Electrical diagram”

WARNING

After disassembling the cable terminal, check that the neutral switch is tightened properly.

NOTE

If the warning light does not even come on doing the “CHECK”, replace the digital instrument.

05188083

**WHEN THE "MODE" BUTTON IS PRESSED,
THE DISPLAY DOES NOT CHANGE FUNCTION**

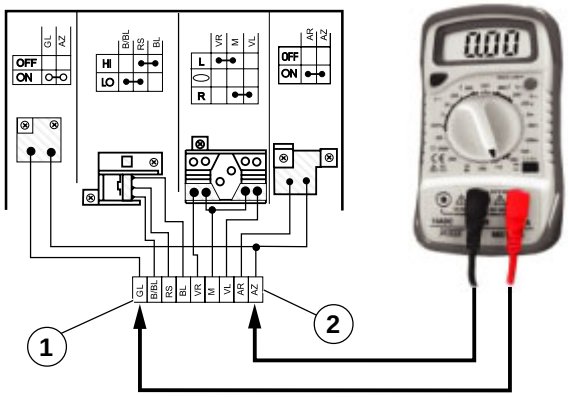
1 "Mode" button check

- Disconnect the nine core connector of the left side switch.
- Connect **Tester (Ω)** as follows:

Terminal (+) ➜ Yellow lead (1)

Terminal (-) ➜ Light blue lead (2)

- Press the "Mode" button
- Check continuity.



NO CONTINUITY

Faulty "Mode" button ➜
Replace the left switch.

CONTINUITY

05188084

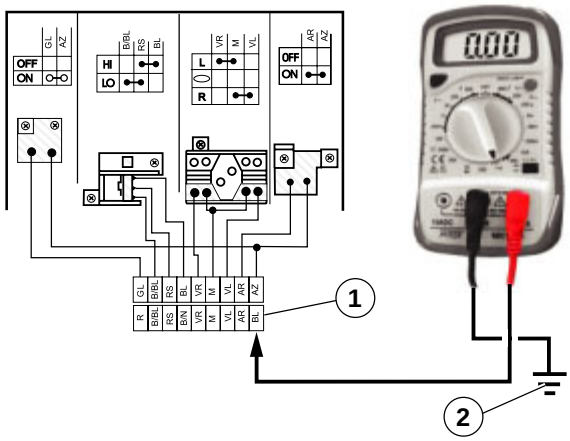
2 Power supply check

- Disconnect the nine core connector of the left side switch.
- Connect **Tester (DC 20V)** to the connector (system side) as follows:

Terminal (+) ➜ Blue lead (1)

Terminal (-) ➜ Chassis ground (2)

- Turn the main switch to “ON”
- **The voltage measured should be > 12 V.**



INCORRECT

“Mode” button not powered; the blue lead is faulty.
Repair wiring.
See “Electrical diagram”

CORRECT

NOTE

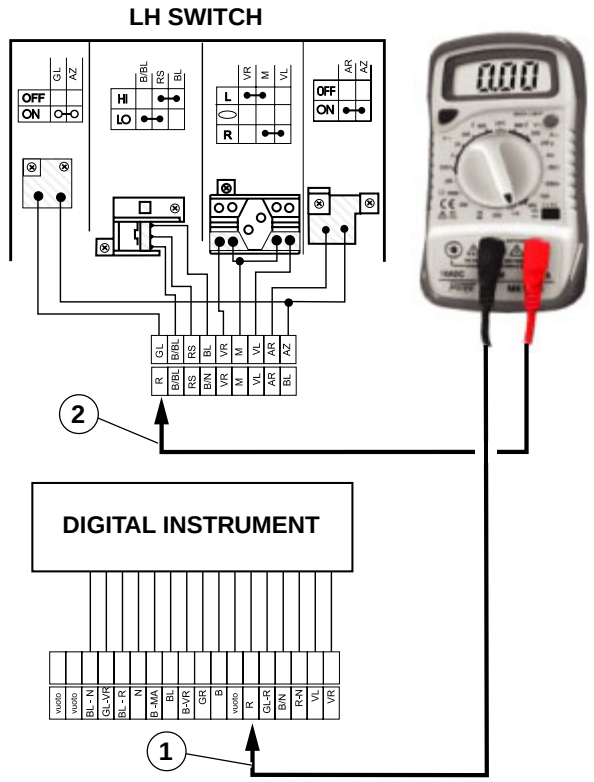
If there is no current in the blue cable the horn does not work either.

3 Check the red lead for continuity

• Connect **Tester (Ω)** as follows:

Terminal (+) ➜ Red lead (1) **(PIN6)**

Terminal (-) ➜ Red lead (2)



NO CONTINUITY

Faulty red lead.
Repair wiring.
See “Electrical diagram”

CONTINUITY

Replace the digital instrument.

05188086

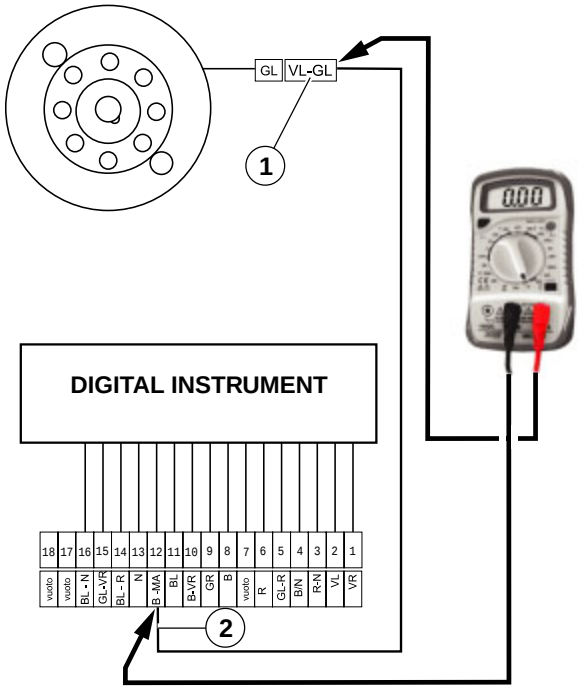
THE TACHOMETER IS FAULTY

1 Check continuity of the feed cable

• Connect **Tester (Ω)** as follows:

Terminal (+) Tester ➜ Purple - yellow cable (1)

Terminal (-) Tester ➜ White - brown cable (2) **(PIN 12)**


GL
VL-GL
1
DIGITAL INSTRUMENT
18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1
vuoto vuoto BL - N GL-VR BL - R N B -MA BL B-VR GR B vuoto R GL-R B/N R-N VL VR
2

NO CONTINUITY

Purple - yellow cable ➜ Faulty white-brown lead.
Repair wiring.
See “Electrical diagram”

CONTINUITY

Replace the digital instrument.

05188087

THE FUEL LIGHT FAILS TO COME ON

1 Fuel probe check

- Disconnect the connector of the fuel probe
- Make a bridge between the grey cable and the black cable of the connector on the system side.
- Rotate the key to the “ON” position and wait a few seconds (CHECK PANEL INDICATORS).

INDICATOR LIGHT ON → Replace the fuel cock

INDICATOR LIGHT OFF

2 Checking grey lead continuity

- Connect **Tester (Ω)** to the leads and check the grey lead for continuity between fuel probe connector and meter assembly connector (PIN 9)

NO CONTINUITY → Faulty black lead.
Repair wiring.
See “Electrical diagram”

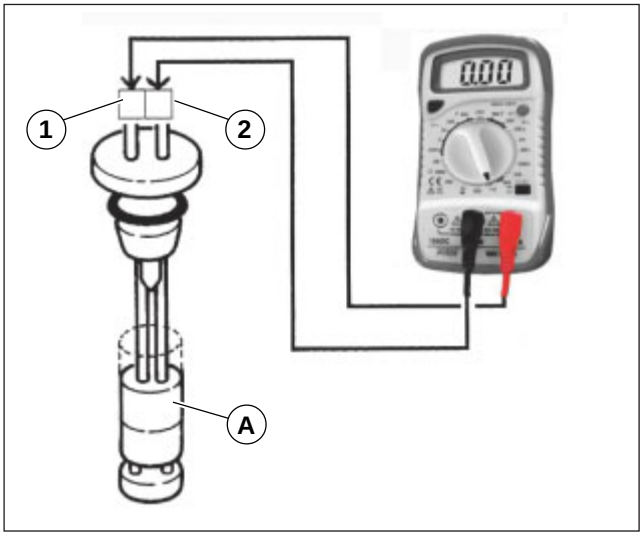
CONTINUITY → Black cable interrupted (Probe connector). Repair
See “Electrical diagram”

05188088

OIL MIX PANEL INDICATOR COMES ON ONLY WITH "CHECK"

1 Check the oil level gauge

- Disconnect the connector of the oil level gauge and remove it from the oil tank.
- Connect **Tester (Ω)** as follows:
  Terminal (+) Tester ➜ Coupling (1)
  Terminal (-) Tester ➜ Coupling (2)
- Keeping the gauge in the vertical position, the ballcock "A" should slide freely and take a position at the base of the probe.



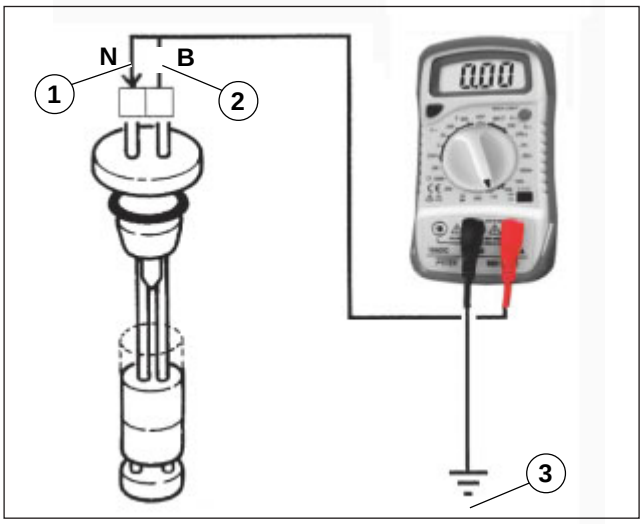
NO CONTINUITY

Faulty gauge; replace it

CONTINUITY

2 Ground check

- Connect **Tester (Ω)** as follows:
  Terminal (+) Tester ➜ Black lead (1)
  Terminal (-) Tester ➜ Chassis ground (3)



NO CONTINUITY

Faulty black lead. Repair making a bridge between the black cable and the electrical earth of the frame.

CONTINUITY

White cable (2) interrupted between the probe and the digital instrument. Repair

See "Electrical diagram"

05188089

WATER TEMPERATURE INDICATOR AND PANEL INDICATOR (RED) DO NOT WORK CORRECTLY

- The engine is hot and the warning light of the digital instrument is at “0”; proceed ass follows:
  disconnect the white – green cable from the thermistor located on the head and connect it to earth.

RED WARNING LIGHT FLASHES AND TEMPERATURE SCALE INDICATES ONLY ONE TRACK

Faulty white-green lead. Repair
See “Electrical diagram”

RED WARNING LIGHT ON AND TEMPERATURE SCALE ON MAXIMUM.

Faulty thermistor. Replace.

WARNING

When the white - green cable is disconnected from the thermistor, the red warning light must always flash.

SPEEDOMETER SENSOR DOES NOT SHOW THE SPEED

- Check that the connector is correctly connected to the digital instrument. See “Electrical diagram”

CORRECT

Replace the speedometer sensor or the digital instrument

INCORRECT

Renew the cables
See “Electrical diagram”

NOTE

If, while doing the check , one of the indicator lights does not come on, the digital instrument has to be replaced.

CONFIGURATION OF THE DIGITAL INSTRUMENT CONNECTOR

PIN	Meaning	Colour
1	Right arrow	Green
2	Left arrow	Purple
3	Neutral	Black - Red
4	High beam panel indicator light	White - Black
5	Hall" sensor input	Yellow - Red
6	MODE button	Red
7	NC	-
8	Oil mix indicator light.	White
9	Fuel indicator	Grey

PIN	Meaning	Colour
10	Water temperature indicator light	White - Green
11	Under key (+12V)	Blue
12	RPM	White - Brown
13	Negative lead	Black
14	Battery positive lead	Blue - Red
15	Hall" sensor GND	Yellow - Green
16	Hall" sensor Vdc	Blue - Black
17	NC	-
18	NC	-